

CLAIMS:

1. A processing unit (1) for generating a scan velocity modulation signal (DS), the processing unit having an input for receiving a video signal (VS), and an output for supplying the modulation signal (DS), characterized in that the processing unit comprises, successively from the input to the output, a coring circuit (C), a differentiator (D), and a limiter (L).
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2. A processing unit (1) as claimed in claim 1, characterized in that the coring circuit (C) comprises a diode circuit, having a first diode (D1) and a second diode (D2) coupled anti-parallel, a cathode of the first diode (D1) being coupled to an anode of the second diode (D2).
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3. A processing unit (1) as claimed in claim 2, characterized in that the differentiator (D) comprises:
 - a first capacitor (C1), which is coupled in series with the diode circuit (D1, D2).
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4. A processing unit (1) as claimed in claim 3, characterized in that an amplifier (Q2, R1, R2, R3, R4) is present having a positive input coupled to an output of the coring circuit (C).
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5. A processing unit (1) as claimed in claim 4, characterized in that the amplifier (Q2, R1, R2, R3, R4) has a transistor (Q2) having a control terminal corresponding to a negative input of the amplifier (Q2, R1, R2, R3, R4), a first main terminal as the positive input, and a second main terminal as an amplifier output.
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6. A processing unit (1) as claimed in claim 5, characterized in that the limiter (L) comprises a series connection of another capacitor (C3) and another diode circuit comprising a third diode (D3) and a fourth diode (D4), the series connection being coupled between a second reference voltage source (V2) and the amplifier output.

7. A processing unit (1) as claimed in claim 6, characterized in that the third (D3) and the fourth diode (D4) are zener diodes coupled anti-parallel.

5 8. A display device (16) comprising a cathode ray tube (10) having a processing unit (1) as claimed in claim 1 for generating a scan velocity modulation signal (DS); and means (12) for modulating a scan velocity of an electron beam coupled to the output of the unit (1).

10 9. A display device (16) as claimed in claim 8, characterized in that a converter (14) is present for converting the modulation signal (DS) into a drive current for driving the means (12) for modulating the scan velocity, the converter (14) having an input which is coupled to the output of the unit (1), and an output which is coupled to the means (12) for modulating the scan velocity.

15 10. A method of generating a scan velocity modulation signal (DS) wherein a video signal (VS) is subjected to the successive steps of:
- coring;
- differentiating; and
20 - limiting an amplitude of the video signal (VS).